

Mineral Industry Surveys

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ALUMINUM IN APRIL 2018

Domestic primary aluminum production in April 2018 was 71,000 metric tons (t). The average daily production in April was 2,360 t, 3% more than that in March 2018, 18% more than that in April 2017, and 13% more than that in April 2016 (fig. 1, table 1).

Total aluminum recovered from scrap in April 2018 was 300,000 t, slightly less than the revised amounts in March 2018, April 2017, but slightly more than that in April 2016. Of this, 170,000 t of aluminum was recovered from new scrap and 130,000 t was recovered from old scrap (fig. 1, table 1).

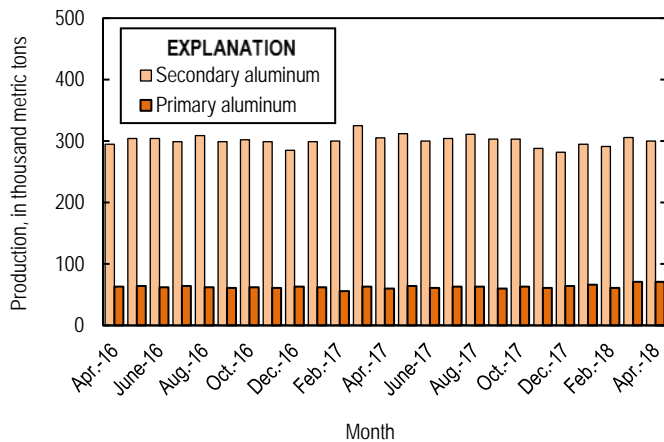


Figure 1. Monthly domestic primary and secondary aluminum production from April 2016 through April 2018. Source: U.S. Geological Survey.

Prices and Stocks

The April 2018 average U.S. market price of primary aluminum ingot and the average cash price on the London Metal Exchange (LME) increased by 9% and 8%, respectively from those in March 2018 to \$1.234 per pound and \$1.019 per pound, respectively (fig. 2, table 6).

Inventories of primary aluminum in LME-approved warehouses in the United States increased to 65,650 t at the end of April 2018 from 59,450 t at the end of March 2018 (London Metal Exchange Ltd., 2018a, b).

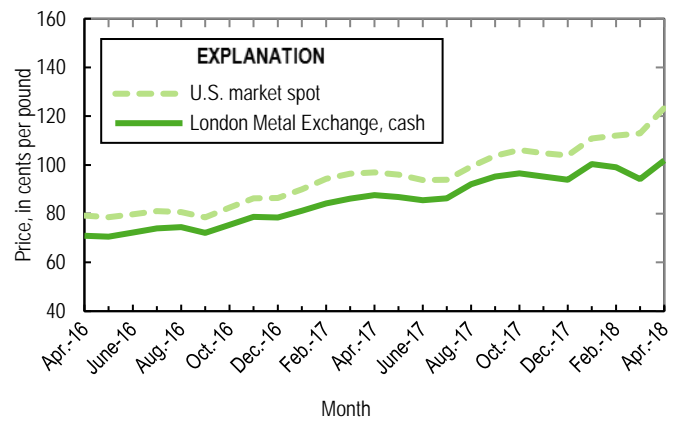


Figure 2. Average monthly prices for primary aluminum from April 2016 through April 2018. Source: Platts Metals Week.

Update

The temporary exemption from the 10% tariff on aluminum produced in Canada, Mexico, and member countries of the European Union expired June 1 without being extended. On March 8, the President of the United States imposed a 10% tariff on aluminum imports under authority of Section 232 of the Trade Expansion Act of 1962. (See Aluminum in January 2018.) Several countries applied for exemptions and some received permanent exemptions on condition of accepting quotas. Temporary exemptions were granted on condition that acceptable progress was made in negotiating import quotas. (See Aluminum in February 2018 and Aluminum in March 2018.) Negotiations with Canada, Mexico, and member countries of the European Union failed to reach agreements on import quotas or other terms by the end of May, so temporary exemptions were allowed to expire. The Secretary of Commerce stated that the negotiations with Canada, Mexico, and the European Union will continue (Fitzgerald and Cowan, 2018).

The U.S. Department of Commerce issued its preliminary determination in the antidumping duty investigation, initiated in November 2017, into imports of common aluminum alloy sheet

from China. (See Aluminum in October 2017.) The preliminary antidumping rate of 167.16% was assigned to all material produced in China covered by the investigation. The alloys that were the subject of the investigation included 1000-series, 3000-series, and 5000-series but did not include can stock alloys. The investigation included flat-rolled products with a thickness greater than 0.2 millimeters and up to 6.3 millimeters. Markets for the subject sheet products were appliances, building and construction, electrical applications, and transportation. The final antidumping determination is scheduled to be announced by October 30 (U.S. Department of Commerce, 2017a, b; 2018).

Century Aluminum Co. shut down one potline at the primary aluminum smelter in Sebree, KY, on May 30, citing a power failure. The capacity of the potline was approximately 73,000 metric tons per year (t/yr). The total capacity of the smelter was 218,000 t/yr. A company official said that it would take about 3 months to restart the potline (Maltais, 2018).

Century was planning to restart production from one potline at the primary aluminum smelter in Hawesville, KY, by July. Only two of the five potlines at the 252,000-t/yr smelter have been producing since 2015, when three potlines were shut down because of low aluminum prices. Century planned to have all five potlines producing by early 2019. The capacity of each potline was approximately 50,000 t/yr (Matyi, 2018a).

Magnitude 7 Metals LLC was planning to restart production from one potline at the primary aluminum smelter in New Madrid, MO, by the end of June. A second potline would be restarted by yearend at the 263,000-t/yr smelter. The capacity of each of the potlines was approximately 88,000 t/yr. The smelter was shut down in early 2016 following a power failure that caused two potlines to be shut down and the bankruptcy of the previous owner, Noranda Aluminum Holding Co. (Matyi, 2018b).

Alcoa Corp. announced that one potline at the Wenatchee, WA, primary aluminum smelter would be shut down permanently. The potline had not operated since 2001 and had a capacity of 38,000 t/yr. Alcoa cited the high cost of putting the potline back into production for making the shutdown

permanent. The other three potlines, with 146,000 t/yr of total capacity, were temporarily shut down in December 2015 (Roh, 2018).

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TABLE 1
COMPONENTS OF ALUMINUM SUPPLY¹

(Thousand metric tons)

Period	Primary production	Secondary recovery ²			Imports for consumption			Total new supply ³	Stocks, end of period ⁴
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2017 ^P	741	2,050 ^r	1,590	3,630 ^r	4,830	1,380	6,200	10,600 ^r	1,470
2017:									
April	60	171 ^r	135	305 ^r	434	113	547	912 ^r	1,320
May	64	175 ^r	137	312 ^r	411	133	544	920 ^r	1,340
June	61	170 ^r	130	300 ^r	409	119	528	890 ^r	1,330
July	63	170 ^r	133	303 ^r	411	130	541	908 ^r	1,360
August	63	174 ^r	138	311 ^r	379	121	500	874 ^r	1,390
September	60	170 ^r	134	303 ^r	338	102	440	804 ^r	1,420
October	63	172 ^r	131	303 ^r	358	122	480	846 ^r	1,430
November	61	166 ^r	122	288 ^r	358	116	474	822 ^r	1,420
December	64	165 ^r	117	282 ^r	400	118	518	864 ^r	1,470
January–April	242	683	546	1,230	1,760	414	2,180	3,650	1,470
2018:									
January	66	168 ^r	126	295 ^r	333	167	500	861 ^r	1,460
February	61	166 ^r	125	291 ^r	374	99	473	825 ^r	1,450
March	71	176 ^r	131	306 ^r	555	126	681	1,060	1,430
April	71	170	130	300	381	122	503	873	NA
January–April	269	680	512	1,190	1,640	514	2,160	3,620	NA

^PPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

²Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

³Primary production, secondary recovery, and imports for consumption.

⁴Inventory levels reflect total for both U.S. and Canadian producers; data from the Aluminum Association Inc.

TABLE 2
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM
PURCHASED NEW AND OLD ALUMINUM SCRAP¹

(Thousand metric tons)

Period	Secondary smelters		Independent mill fabricators		Foundries		Other consumers		Total	
	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery
	2017 ^p	2,200 ^r	1,650 ^r	2,060	1,880	101	93	4	4	4,360 ^r
2017:										
April	183 ^r	137 ^r	175	160	8	8	(2)	(2)	367 ^r	305 ^r
May	187 ^r	141 ^r	179	164	8	8	(2)	(2)	375 ^r	312 ^r
June	176 ^r	131 ^r	176	161	8	8	(2)	(2)	361 ^r	300 ^r
July	183 ^r	138 ^r	172	158	8	8	(2)	(2)	364 ^r	303 ^r
August	185 ^r	140 ^r	179	163	8	8	(2)	(2)	373 ^r	311 ^r
September	180 ^r	136 ^r	173	159	8	8	(2)	(2)	362 ^r	303 ^r
October	188 ^r	141 ^r	169	154	8	8	(2)	(2)	365 ^r	303 ^r
November	183 ^r	138 ^r	154	141	8	8	(2)	(2)	347 ^r	288 ^r
December	182 ^r	138 ^r	148	136	8	8	(2)	(2)	339 ^r	282 ^r
January–April	733	551	708	646	34	31	1	1	1,480	1,230
2018:										
January	179 ^r	136 ^r	164	150	8	8	(2)	(2)	352 ^r	295 ^r
February	173 ^r	130 ^r	166	153	8	8	(2)	(2)	348 ^r	291 ^r
March	164	130	184 ^r	169 ^r	8	8	(2)	(2)	357 ^r	306 ^r
April	165	131	175	160	8	8	(2)	(2)	349	300
January–April	681	527	689	632	34	31	1	1	1,410	1,190

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than ½ unit.

TABLE 3
 CONSUMPTION OF AND RECOVERY FROM PURCHASED
 NEW AND OLD ALUMINUM SCRAP IN APRIL 2018¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	138,000	165,000	109,000	131,000
Independent mill fabricators	160,000	175,000	147,000	160,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	266	320	266	320
Total	305,000	349,000	263,000	300,000

¹Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED
PIG IN APRIL 2018¹

(Metric tons)

	April			January–April ²		
	Stocks, opening ²	Net receipts ³	Melted or consumed	Stocks, closing	Net receipts ³	Melted or consumed
New scrap:						
Extrusion	15,500	70,300	70,500	15,300	278,000	278,000
Can stock clippings	4,670	22,600	22,500	4,800	86,200	86,500
Other wrought sheet/clippings	9,080	42,600	42,400	9,230	167,000	167,000
Casting	3,080	4,690	4,890	2,870	19,800	20,100
Borings and turnings	3,510	8,580	8,980	3,100	38,200	39,600
Dross and skimmings	10,300	28,100	28,100	10,300	133,000	133,000
Total new scrap	46,200	177,000	177,000	45,600	722,000	724,000
Old scrap:						
Used castings	8,310	24,900	25,100	8,110	99,900	100,000
Used extrusion	7,830	13,500	13,500	7,830	55,600	56,100
Used cans (shredded, loose, baled)	9,230	49,400	49,300	9,290	191,000	191,000
Other wrought products	10,600	30,800	30,500	10,800	114,000	120,000
Fragmentized shredder (auto shredder)	1,790	8,930	9,270	1,450	35,700	36,600
Total old scrap	37,700	128,000	128,000	37,500	496,000	504,000
Sweated pig	--	--	--	--	--	--
Total all classes	83,900	304,000	305,000	83,100	1,220,000	1,230,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to previously published data.

³Includes data on imported aluminum-base scrap.

TABLE 5
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED
STATES IN APRIL 2018^{1,2}

(Metric tons)

	April			January–April		
	Stocks, opening ³	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	2,810	2,460	1,790	3,480	8,820	7,030
380 and variations	6,190	14,700	14,700	6,190	58,800	58,800
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,160	2,370	2,370	1,160	9,480	9,480
No. 319 and variations	2,630	3,780	3,680	2,730	14,800	14,700
F-132 alloy and variations	162	196	196	162	783	783
Al-Zn alloys	243	94	94	243	375	375
Al-Si alloys (0.6% to 2.0% Cu)	103	92	92	103	367	367
Al-Cu alloys (1.5% Si, max.)	178	67	67	178	270	270
Other ⁴	4,840	9,730	9,730	4,850	40,900	40,600
Wrought alloys, extrusion billets	10,100	54,700	54,700	10,100	219,000	219,000
Total all alloys	28,400	88,200	87,400	29,200	354,000	351,000
Less:						
Primary aluminum consumed	XX	15,800	XX	XX	63,700	XX
Primary silicon consumed	XX	2,010	XX	XX	7,900	XX
Other alloying ingredients consumed	XX	947	XX	XX	4,200	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot ⁵	XX	69,400	XX	XX	278,000	XX

XX Not applicable.

¹Excludes integrated aluminum companies.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

⁵No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6
 AVERAGE PRICE OF ALUMINUM IN THE UNITED STATES
 AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	Midwest U.S. market price	LME cash price Grade A
2017:		
April	96.972	87.571
May	96.071	86.803
June	93.761	85.559
July	93.964	86.329
August	99.330	92.062
September	103.810	95.261
October	106.198	96.616
November	104.852	95.280
December	103.908	93.911
January–December	98.298	89.254
2018:		
January	110.830	100.429
February	112.050	99.091
March	112.929	94.173
April	123.388	101.866
January–April	114.799	98.890

Source: Platts Metals Week.

TABLE 7
AVERAGE BUYING PRICES FOR ALUMINUM SCRAP

(Cents per pound)

Month	Used beverage cans	Mixed low copper clips	Old sheet	Old cast	Turnings (clean and dry)
2017:					
April	71.55	66.00	61.75	62.75	61.15
May	68.27	64.50	60.05	61.05	60.36
June	67.23	63.14	58.77	59.77	59.68
July	67.05	62.00	57.85	59.00	59.00
August	70.98	62.91	57.30	58.35	59.00
September	73.12	65.00	58.40	58.95	58.90
October	74.09	65.00	58.00	58.77	58.00
November	72.88	64.08	57.65	59.00	56.60
December	69.95	62.55	56.50	57.95	54.70
January–December	70.93	63.62	58.44	59.63	58.62
2018:					
January	75.57	63.48	58.90	59.90	56.36
February	75.66	65.29	61.21	62.21	58.45
March	75.59	66.00	61.91	63.00	58.95
April	81.81	66.29	60.83	62.76	57.71
January–April	77.16	65.27	60.71	61.97	57.87

Source: American Metal Market.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN APRIL 2018¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	April	January-	April	January-	April	January-	April	January-
		April		April		April		April
Argentina	12,400	63,700	--	2	--	--	12,400	63,700
Australia	6,090	24,600	10	133	19	593	6,120	25,400
Austria	--	--	2,880	10,000	--	--	2,880	10,000
Bahrain	13,100	44,700	8,140	20,200	--	--	21,200	64,900
Belgium	1	383	535	2,970	--	--	536	3,350
Brazil	--	1,290	1,690	7,580	18	248	1,710	9,120
Canada	207,000	794,000	23,400	93,900	33,100	127,000	263,000	1,020,000
Chile	--	--	--	--	442	2,130	442	2,130
China	230	2,500	25,100	173,000	11	352	25,300	175,000
Colombia	--	--	731	2,740	191	454	922	3,190
Costa Rica	--	--	14	14	259	1,280	273	1,300
El Salvador	--	--	107	305	339	1,200	446	1,500
France	584	7,540	3,730	12,000	111	701	4,430	20,200
Germany	36	278	3,220	11,800	737	1,670	3,990	13,700
Greece	--	--	2,200	6,510	--	25	2,200	6,540
Guatemala	--	--	--	--	1,150	4,230	1,150	4,230
Honduras	--	--	--	--	218	708	218	708
Hong Kong	--	--	826	3,080	56	201	882	3,280
India	14,500	66,000	3,970	14,600	--	--	18,400	80,700
Indonesia	--	--	8,100	27,000	--	--	8,100	27,000
Italy	119	122	1,150	4,100	--	--	1,270	4,220
Japan	--	--	3,020	12,500	7	88	3,030	12,600
Korea, Republic of	5	5	1,960	6,700	5,150	9,540	7,110	16,200
Malaysia	227	244	944	3,050	--	--	1,170	3,290
Mexico	2,880	9,070	4,760	17,000	14,500	51,200	22,100	77,300
Netherlands	171	632	309	1,300	7	51	487	1,990
New Zealand	736	3,540	1	1	--	--	737	3,540
Norway	38	10,600	27	88	--	--	65	10,700
Oman	7,160	10,800	7,570	15,400	--	--	14,700	26,200
Qatar	8,930	32,400	--	1	--	--	8,930	32,400
Romania	--	--	473	1,070	--	--	473	1,070
Russia	33,900	226,000	1,810	6,770	--	--	35,700	233,000
Saudi Arabia	6,390	21,400	950	6,150	550	1,050	7,890	28,500
South Africa	9,490	65,400	3,150	16,800	--	--	12,600	82,200
Spain	58	1,160	336	1,370	382	2,120	776	4,640
Sweden	--	--	684	2,280	--	--	684	2,280
Switzerland	--	--	310	1,190	--	--	310	1,190
Taiwan	--	60	3,120	6,280	169	710	3,290	7,050
Thailand	69	277	420	2,590	170	651	659	3,520
Turkey	--	--	1,760	5,290	217	1,260	1,980	6,550
United Arab Emirates	56,400	231,000	129	404	145	877	56,700	232,000
United Kingdom	29	129	202	744	407	1,150	638	2,020
Venezuela	530	24,000	110	843	724	3,990	1,360	28,800
Vietnam	--	253	1,530	9,000	4	18	1,540	9,270
Other	110	716	2,770	8,060	1,540	7,190	4,420	16,000
Total	381,000	1,640,000	122,000	514,000	60,700	221,000	564,000	2,380,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 9
U.S. EXPORTS OF ALUMINUM IN APRIL 2018¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	April	January–	April	January–	April	January–	April	January–
		April		April		April		April
Australia	26	140	139	652	--	3	165	795
Belgium	5	25	57	238	302	781	364	1,040
Bolivia	--	--	--	638	--	--	--	638
Brazil	37	85	324	1,150	1,790	2,940	2,150	4,170
Canada	11,100	42,800	35,100	142,000	8,880	34,400	55,000	219,000
China	72	697	2,540	10,300	60,100	238,000	62,700	249,000
Colombia	40	82	119	611	--	15	159	708
Dominican Republic	154	585	102	432	--	--	256	1,020
France	448	2,300	1,020	3,940	264	985	1,730	7,220
Germany	331	776	724	2,180	788	3,150	1,840	6,110
Guatemala	--	3	323	2,390	--	--	323	2,390
Hong Kong	--	--	132	458	3,910	9,520	4,040	9,980
India	10	66	260	844	11,000	38,500	11,300	39,400
Indonesia	2	4	146	339	3,790	14,400	3,940	14,700
Ireland	10	33	44	158	--	--	54	191
Israel	1	2	771	2,910	21	47	793	2,950
Italy	--	40	145	458	--	--	145	498
Jamaica	--	18	16	48	--	--	16	66
Japan	94	488	1,210	4,100	1,780	5,900	3,080	10,500
Korea, Republic of	35	251	2,780	11,000	19,300	69,000	22,100	80,200
Malaysia	--	19	282	1,730	10,700	30,900	11,000	32,600
Mexico	12,000	50,800	43,700	161,000	15,700	55,000	71,300	267,000
Netherlands	2	58	14	109	424	1,210	440	1,380
New Zealand	--	6	78	314	--	--	78	320
Norway	--	3	21	47	--	--	21	50
Pakistan	--	--	20	69	915	2,460	935	2,530
Panama	8	9	4	22	--	--	12	31
Philippines	4	40	16	155	239	769	259	964
Poland	13	35	62	260	--	171	75	466
Romania	66	85	65	143	--	--	131	228
Russia	1	16	13	56	1,430	6,060	1,450	6,130
Saudi Arabia	--	--	218	709	20	20	238	729
Singapore	142	410	397	1,830	75	177	614	2,420
Spain	42	50	91	302	102	713	235	1,070
Taiwan	644	2,410	908	3,850	3,870	12,400	5,420	18,600
Thailand	3	45	421	1,470	1,200	3,130	1,620	4,650
Turkey	43	106	245	1,170	--	237	288	1,510
United Arab Emirates	28	329	15	440	231	468	274	1,240
United Kingdom	84	166	1,130	3,840	337	758	1,550	4,760
Vietnam	--	--	8	34	542	1,300	550	1,340
Other	57	153	570	1,790	1,010	2,580	1,640	4,530
Total	25,500	103,000	94,100	364,000	149,000	536,000	268,000	1,000,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.